NextGen Minneapolis-St. Paul International/Wold-Chamberlain Airport

Minneapolis-Saint Paul International Airport (MSP) is the 17th busiest airport in the United States in terms of passenger traffic, which grew 3.7 percent in 2014 to reach 35.1 million. The number of operations decreased 4.3 percent during that time to 412,586. In 2014, MSP was the 28th busiest airport in terms of cargo volume with 198,574 metric tons of freight and mail passing through its facilities. Delta Air Lines accounts for the majority of the average daily domestic flights at MSP.

Several NextGen capabilities and enabling improvements have been implemented including Airport Surface Detection Equipment-Model X, Automated Terminal Proximity Alert, Converging Runway Display Aid, External Surface Data Release, Expanded Low-Visibility Operations Using Lower Runway Visual Range Minima, Performance Based Navigation procedures, basic rerouting, Optimized Profile Descents, Situational Awareness and Alerting of Ground Vehicles, Adjacent Center Metering, and Adapted for Time Based Flow Management use.

All airport information shown above is reported by Calendar Year (CY).

Scorecard

The following metrics summarize performance over a large set of diverse operations at this location. As such, their purpose is to reflect general trends as experienced by aircraft operators and passengers, without regard to their underlying drivers. For this reason, metric values should <u>not</u> be compared to operational impacts attributed to specific NextGen capabilities, where these are provided.

Reportable Hours for MSP 07:00 - 22:59 local time

All Information below is in Fiscal Years (October 1 - September 30).

- <u>Efficiency</u>
- Capacity

Efficiency Performance Indicators

Performance Indicator (FY)	2009	2010	2011	2012	2013	2014	2015	2016
Average Gate Arrival Delay								
Minutes per Flight								
During reportable hours, the yearly								
average of the difference between the								
Actual Gate-In Time and the Scheduled								

Gate-In Time for flights to the selected airport from any of the ASPM airports. The delay for each fiscal year (FY) is calculated based on the 0.5 h — 99.5th percentile of the distributions for the year. Flights may depart outside reportable hours, but must arrive during them. The reportable hours vary by airport.	2.4	3.9	3.2	-4.2	-0.4	2.5	1.7	0.0
Average Number of Level-offs per Flight Counts per Flight The count of level-offs as flights descend from cruise altitudes to the arrival airport, averaged for the fiscal year.	1	1	2.5	2.3	2.4	2.5	2.1	1.8
Distance in Level Flight from Top of Descent to Runway Threshold Nautical Miles per Flight The distance flown during level-off segments as flights descend from cruise altitudes to the arrival airport, averaged for the fiscal year (FY).	1	1	33.3	30.9	32.2	32.1	26.0	21.8
Effective Gate-to-Gate Time Minutes per Flight During reportable hours, the difference between the Actual Gate-In Time at the destination (selected) airport and the Scheduled Gate-Out Time at the origin airport. Flights may depart outside reportable hours, but must arrive during them. The reportable hours vary by airport and the results are reported by fiscal year (FY).	143.2	143.5	147.3	136.8	133.1	142.0	141.4	139.1
Taxi-In Time Minutes per Flight During reportable hours, the yearly average of the difference between Wheels-On Time and Gate-In Time for flights arriving at the selected airport from any of the Aviation System Performance Metrics (ASPM) airports. Flights may depart outside reportable hours, but must arrive during them. The reportable hours vary by airport.	8.2	8.4	7.7	6.9	6.3	6.0	5.8	5.6

Taxi-Out Time Minutes per Flight								
During reportable hours, the yearly average of the difference between Gate-Out Time and Wheels-Off Time for flights from the selected airport to any of the ASPM airports. Flights must depart during reportable hours, but may arrive outside them. The reportable hours vary by airport.	18.6	18.4	18.5	17.0	18.5	18.1	17.4	18.4

¹ Consistent data for the time period prior to FY 2011 are not available.

As described by the International Civil Aviation Organization (ICAO), efficiency addresses the operational and economic cost-effectiveness of gate-to-gate flight operations from a single-flight perspective. In all phases of flight, airspace users want to depart and arrive at the times they select and fly the trajectory they determine to be optimum.

Capacity Performance Indicator

Capacity i	<u> </u>	manee	Indic					
Performance Indicator (FY)	2009	2010	2011	$2\overline{012}$	2013	2014	2015	2016
Average Daily Capacity Number of Operations During reportable hours, the average daily sum of the Airport Departure Rate (ADR) and Airport Arrival Rate (AAR) reported by fiscal year (FY). The reportable hours vary by airport.	2,218	2,240	2,289	2,372	2,328	2,324	2,307	2,263
Average Hourly Capacity During Instrument Meteorological Conditions (IMC) Number of Operations								
The average hourly capacity reported during IMC weather conditions (as defined by ASPM). Capacity is defined as the sum of Airport Departure Rate (ADR) and Airport Arrival Rate (AAR). It is calculated based on the reportable hours at the destination airport. The reportable hours vary by airport.	128	123	130	137	134	134	135	133

As described by the International Civil Aviation Organization (ICAO): The global Air Traffic Management (ATM) system should exploit the inherent capacity to meet airspace user demands at peak times and locations while minimizing restrictions on traffic flow. ICAO also notes: The ATM system must be resilient to service disruption and the resulting temporary loss of capacity.

Additional Links

NextGen Implementation Plan